



2010 World Population and Housing Census Programme

Newsletter

March 2009

United Nations Statistics Division, New York

No. 4

2011 Canadian Census of Population

Before each census, Statistics Canada embarks on an extensive user consultation and testing program to develop the questionnaire content. Data users and interested parties across Canada are asked for their views on the type and extent of information they believe should be available from the census. The goal is to ensure that Statistics Canada takes account of emerging social and economic issues and, where appropriate, uses the census to shed light on them.



Consultations on the 2011 Census content were held in 2007 with a broad range of users, including key federal government departments, provinces and territories, local authorities, libraries, academia, the private sector, special interest groups and the general public. The Internet has become the primary vehicle for consultation material. Written submissions, dedicated meetings, conferences and working groups also continue to be highly effective ways to engage with users.

A new question will be added to the 2011 Census questionnaires only after testing clearly demonstrates it to be effective and shows Canadians' willingness and ability to answer it. A number of focus groups and in-depth one-on-one interviews were conducted to initially assess the question wording. Quantitative tests then statistically assess the quality of information that would result from changes made to the questions and questionnaire design. In preparation for the 2011 Census, there are two such tests. A smaller Content Test was held in May 2008 while the dress rehearsal National Census Test will take place this May 2009. In Canada, final approval of the census questions is given by the federal cabinet. This is scheduled for Spring 2010.

Many elements are weighed when determining census content. These include the requirement to support legislation and government programs and policies; to support the need for census data of geographically dispersed populations, small geographic areas and target populations; to maintain high standards of data quality; to manage costs; to ensure historical comparisons; to consider the burden to respondents; and to assess alternative data sources

In order to reduce the number of field staff for the 2011 Census, an 80-85% mail-out is targeted, compared with the 70% reached in 2006. This has required improving the coverage of the Address Register (AR) coverage to approximately 90-95% of all addresses in Canada. Effective recruitment, hiring and retention strategies are also being developed to ensure required staffing levels are maintained through-out the non-response follow-up period.

Based on the strength of the Internet response in 2006, the target is to double the Internet response rate in 2011 to 35-40% (4.4 million dwellings). At the same time, building on the research conducted during the 2006 Census, a letter inviting households to complete the questionnaire on-line will be sent instead of the paper questionnaire to approximately 60% of the private dwellings across Canada.

For a more detailed report, go to http://unstats.un.org/unsd/demographic/sources/census/2010_PHC/Canada/2011_Canadian_Census.pdf

INSIDE THIS ISSUE:

2011 Canadian Census of Population 1

Brazil Prepares for the 2010 Population Census 2

Mexico — Preparations for the 2010 Population and Housing Census Underway 3

Mapping for the 2011 Census of Jamaica 4

United Nations Regional Workshop, Bamako, Mali 5

UNSD-UNECLAC Regional Workshop on Census Cartography, Santiago, Chile 6

United Regional Workshop, Minsk, Belarus 7

Brazil Prepares for the 2010 Population Census

The Brazilian Institute of Geography and Statistics (IBGE) will conduct, in August 2010, the twelfth Demographic Brazilian Census. The operation will involve more than 200 thousand professionals, including technicians, supervisors and interviewers. The total budget of the operation is estimated at around US\$ 600 million. The 2010 Census will use new technologies on a large scale. Handheld computers, successfully used in the 2007 head count, will replace the traditional paper questionnaire and major investment is being made in the preparation of a digital census mapping, which comprises the urban and rural territorial maps, the enumeration areas' boundaries as well as the National Address File for Statistical Purpose.

Since the inception of the 2010 Demographic Census project in 2007, meetings have been held with the Ministries in order to structure the project. Thematic meetings to discuss the questions on housing, religion, race, indigenous population, language, disability, marriage, fertility, mortality, migration, displacement, shantytowns, education, health, employment and income, family, usual residence, health, employment and agriculture have been conducted with the participation of specialists. Besides, technical discussions on methodology and technology have been carried out.

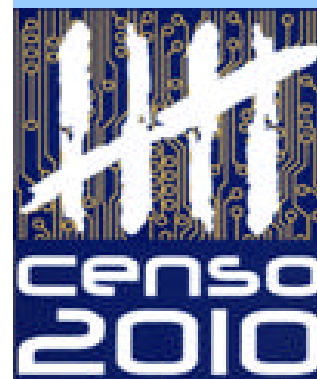
In this preparatory stage, two Pilot Tests have already been conducted in order to test the questions, to check the supervision scheme and also operational and technological issues for the 2010 Demographic Census. The census dress rehearsal is planned to be taken from August to October 2009.

In addition to the general pilot tests, three joint pilot tests have been conducted in the scope of the Common Census in the MERCOSUR Project. Such tests have been conducted along the border with Argentina and Paraguay. The first thematic test was on disability, the second on international migration and the third one was directed to the indigenous population and conducted by Brazil and Paraguay. IBGE, in a joint action with the General Directorate for Statistics, Surveys and Censuses of Paraguay (DGEEC) carried out last November the Third Joint Pilot Test for the 2010 Population Census. The test focused on indigenous populations, living in communities.

This joint test was carried on as part of the horizontal technical co-operation between the countries member of the project for harmonization and evaluation of the censuses, in the scope of the Harmonized 2010 Round Census Project for the four MERCOSUR countries (Argentina, Brazil, Paraguay and Uruguay) plus Bolivia, Chile, Mexico, Ecuador and Venezuela. The aim of the test was conceptual framework for investigation of the indigenous population and its characteristics. Representatives of the NSO for eight of the nine countries in the Project and also from Peru accompanied the fieldwork at indigenous villages on both sides of the border Brazil - Paraguay. After the fieldwork observation, the representatives discussed their findings in an Evaluation Seminar, which was also attended by anthropologists from both countries and representatives of some UN Agencies.

As part of the technology innovation project, IBGE is conducting a study of viability on data collection through the Internet. The first stage of the project, which comprises the network capacity requirements, the security system, and the first version of the electronic questionnaire, is concluded. The first field test is planned for March 2009.

For more information, please visit: www.ibge.gov.br/censo2010



Mexico – Preparations for the 2010 Population and Housing Census Underway

Mexico is planning the 2010 to be carried out on a *de jure* basis, that is to say, to enumerate the population in their place of usual residence. Field work for the census will take place over a six-week period between February and March 2010, with an additional week to be used in order to cover outstanding dwellings. There will be universal enumeration of the population and dwellings within the national territory with a basic questionnaire through mobile computer devices.

In terms of planning leading up to the census, some of the activities that will be undertaken include (1) carrying out an analysis of the related statistical-historical information to the geo-statistical frame; (2) using the results of the households' inventory of the Economical Census 2009 to perform the planning of the urban areas, and in the rural ones those related to the Counting 2005 and from the Agricultural Census 2007; (3) updating the urban and rural cartography in 2009; (4) automating all the planning process in detail; (5) automatic calculation of the field personnel through block level; and (6) delimitation of the responsibility geographic areas of each position.

Part of the census preparatory activities will be having an inventory of all private dwelling. This will be obtained by visiting all the rural localities and the urban blocks throughout the country to identify and classify private dwellings according to whether they are inhabited, uninhabited and in temporary use. Part of this exercise will be to verify if someone lives in construction dwellings and in buildings that are not determine for residential use such as malls, factories, ateliers, offices, schools, churches, circuses, boats, trailers park, caves, bridges and any other type of refuges.

It is assumed that the 2000 census design will be repeated in 2010 in terms of similar conditions, similar questionnaire, equal productivity, etc., with an expected coverage projected at 27.3 million dwellings. Given these assumptions, the budget for the census is estimated at 239.6 pesos by dwelling, and at 6 541.1 million pesos for the period 2009-2010. However, INEGI has started the first draft of the budget for the XIII Population and Housing Census, 2010 in order to determine the amount of the required budget considering the anticipated technological innovations for this census.

The country is considering the use of mini laptops for the 2010 Population and Housing Census for the following reasons: (1) it allows counting with an electronic questionnaire, (2) approximately 150 000 mini laptops are required, (3) it allows obtaining results in 6 months, and (4) estimated cost of the mini laptops of about \$1 050 million pesos (102 million dollars) is reasonable.

Two types of questionnaires will be used, the basic questionnaire, and the extended questionnaire.

Mapping for the 2011 Census of Jamaica

Jamaica has tentatively scheduled the next census for April 2011. The country has a long history of census taking dating back to the nineteenth century, and this census will be the fourteenth. The Statistical Institute of Jamaica (STATIN) is authorized by the Statistics (Amendment) Act to conduct censuses in Jamaica.

The smallest geographic unit for which data have been collected for Jamaican twentieth century censuses is the enumeration district (ED). The size of an ED is approximately 150 households in the urban areas and 100 in the rural areas. Each ED is designed to be of a size that will ensure an equitable workload for each interviewer, and because dwellings are more widely spaced in rural areas than in urban areas, rural EDs usually contain fewer households than urban ones. There were 5,235 EDs for the 2001 census.

Jamaica is fortunate to have inherited a network of enumeration districts that form a national grid as well as a topographic map series that provides complete map coverage of the island at scales 1:50,000 and 1:12,500. There are relatively few gaps or overlaps in the ED network and a comprehensive set of census maps (drawn to scale) are maintained. This makes mapping preparation for any census relatively straightforward despite the need for map updating and ED boundary revisions. The existence of a Continuous Social and Demographic Household Survey Programme also means that there is ongoing revision and updating of at least 40% of maps. With the conduct of an Agricultural Census in 2007 all rural EDs were visited resulting in approximately 85% of those maps being ready for Census 2011. All 5,235 ED maps inherited from the 2001 census are available in both digital and analogue form.

Despite these advantages, mapping for censuses in Jamaica faces formidable challenges.

- Volatility of some areas – In areas prone to outbreaks of violence and criminal activity it is difficult to find suitable personnel willing to undertake field mapping work in these locations.
- Mapping of Informal Settlements – unplanned settlements with no infrastructure and high population densities present special problems. Suitable boundaries for defining or splitting EDs cannot be identified because of the tight clusters which exist. A particular challenge arises when mapping decisions taken have to be abandoned because of the unplanned activity which is likely to take place by the time census enumeration begins.
- Inability to recruit and retain staff for the field mapping mainly because of some of the problems previously identified; volatility of some areas and the difficult terrain.
- Difficulty in Acquiring up-to-date Base Maps - Obtaining current and accurate maps for use in the mapping exercise presents a problem particularly for some urban areas. The topographic map series published by the National Land Agency (NLA) are out of date and several areas in the country will have to be remapped for the conduct of the census. Work is also being undertaken to re-scale large sections of some of these maps.
- Difficult terrain- Damaged road networks are considered to be even more problematic for this mapping exercise than has ever been experienced in the past. This is as a result of the devastating impact of major hurricanes which have affected the island in recent years.

Despite the many challenges the Cartographic Unit fully recognizes the key role of mapping in census not just for the provision of maps for the field workers but also for the dissemination of the census results.

Based on the assessments to date it is estimated that there will be 5750 EDs to be canvassed for the 2011 Census and to date 700 are targeted for major updating.

Governmental support for the census project, in the form of funding will be the major determinant of the success of the mapping and indeed the entire census project. STATIN is now in the process of preparing the full census budget to cover the planning, enumeration and dissemination phases of the census which is expected to cost about US \$15 million.



United Nations Regional Workshop on Census Data Processing: contemporary technologies for census data capture and data editing, 3 - 7 November 2008, Bamako, Mali

Twenty-nine participants from 17 French-speaking African countries (Algeria, Angola, Burundi, Cap Verde, Chad, Congo, Ivory Coast, Democratic Republic of Congo, Guinea, Guinea-Bissau, Madagascar, Mali, Mauritania, Morocco, Niger, Senegal, Togo), as well as two regional organizations (the African Bank of Development, and AFRISTAT), attended the workshop on census data processing in Bamako, Mali, 3-7 November 2008. The workshop was hosted by AFRISTAT, and benefited from the excellent working conditions provided by this well-known regional organization.

The object of the workshop was to present the international standards relating to the operations of census of the population and housing and to clarify the new possibilities offered by contemporary technologies related to their use for the capture and editing of census data. More precisely, the workshop presented the recently revised "Principles and Recommendations for Population and Housing Censuses"; discussed the ways to improve management and planning of the census as well as problems involved in outsourcing; reviewed contemporary technologies for census data capture, in particular optical mark recognition (OMR) and optical/intelligent character recognition (OCR/ICR)); discussed stages of the process of data capture; reviewed the various service providers of data capture, and finally presented the principles and practices in the field of coding and editing of census data. The participants also could practice on the use of the scanning technologies thanks to the presence of two data capture companies.



UNSD-UNECLAC Regional Workshop on Census Cartography for the 2010 Latin America's census round, 24 - 27 November 2008, Santiago, Chile

The UNSD-UNECLAC Regional Workshop on Census Cartography for the 2010 Latin America's census round was held in Santiago, Chile, 24-27 November 2008, and attended by 47 participants from 17 countries (Argentina, Bolivia, Brazil, Chile, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guyana, Honduras, Mexico, Panama, Paraguay, Peru, Uruguay, Venezuela), two international/regional organizations (FAO, UNECLAC), four national organizations and a commercial provider (ESRI and Trimble).

The purpose of the Workshop was to highlight the significant additional capabilities of Geographic Information Systems (GIS) and other geospatial technologies in census mapping activities, including preparation of enumeration, enumeration operations, advanced analysis and dissemination of census data, and how to successfully implement and use these technologies.

The workshop recognized the advantages of using the contemporary geospatial technologies and geographical databases at all stages of population and housing census process and made recommendations that advocate for the building of a geospatial infrastructure in support of census activities, including technical and human capacities; suggest some mechanisms for empowering capacities through bilateral exchanges between countries, study visits, regional coordinated trainings and contact networks; call upon the countries of the region to adopt a dissemination strategy for statistical information in order to fully inform policy decision making, and request NSOs to develop tools for dissemination of census geographic products that go beyond the production of enumeration area maps for census enumeration and thematic maps for census.



Regional Workshop on the 2010 World Programme on Population and Housing Censuses: International standards, contemporary technologies for census mapping and data processing, (Minsk, Belarus, 8-12 December 2008)

The Workshop was organized by the United Nations Statistics Division and hosted by the National Statistical Committee of the Republic of Belarus and was attended by representatives of 11 CIS countries and other relevant organizations.

The purpose of the Workshop was to present international standards for conducting population and housing censuses and to highlight the significant capabilities of contemporary technologies in the form of new approaches in census geography, including the use of Geographical Information Systems and Global Positioning Systems in census mapping; data collection and dissemination, as well as technologies for census data capture, including the use of Optical Mark Recognition (OMR), Optical Character Recognition/Intelligent Character Recognition (OCR/ICR), Internet data collection, use of handheld devices for data collection.

The workshop participants recommended early planning of the census, especially regarding the use of improved technology and also when there is outsourcing of census activities. Furthermore, it was emphasized that testing of the census questionnaire and of the technology to be used in different aspects of the census was crucial. In this connection, it was mentioned that the pilot census would provide a dress rehearsal for the main census. For example, participants emphasized the importance of testing the data capture process before the census as availability of software recognition engine for Cyrillic characters is generally problematic. The importance of thorough preparation of the tender process for outsourcing of census activities and of the testing of the processes to be outsourced was also stressed.

In the context of a National Spatial Data Infrastructure, workshop participants underlined the importance of the NSO's collaboration with other agencies, mapping agencies, other government agencies, producers or users of maps.

The participants expressed the need for exchange of information among the countries of region and highlighted the role of regional and international agencies in this regard, including the UNECE, UNSD and CIS Secretariat.



2010 World Programme on Population and Housing Censuses Newsletter is published by the Demographic Statistics Section of the United Nations Statistics Division, Department of Economic and Social Affairs. The views expressed in this newsletter do not necessarily represent those of the United Nations. Contact: Demographic Statistics Section, United Nations Statistics Division, 2 United Nations Plaza, New York, NY 10017, USA, E-mail address: globalcensus2010@un.org, or visit our website at: <http://unstats.un.org/unsd/census2010.htm>